Engineering Transformation and Innovation in Libraries

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UMKC Dean of Libraries

Engineering Transformation and Innovation in Libraries

Then

...

Now

**Individual
Study**

1969

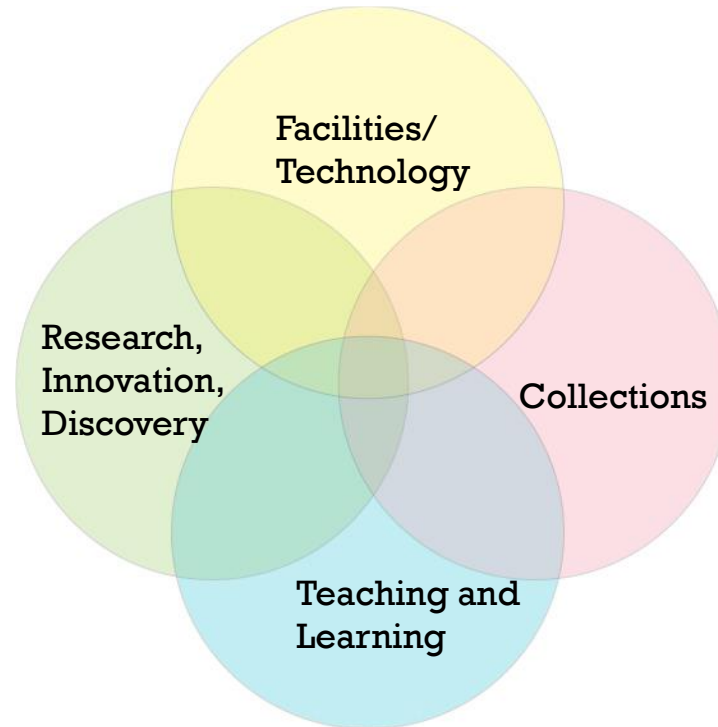**Book Repository**

Collaborative Learning

2018

Focus on Student Learning

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Facilities/ Technology

Research, Innovation, Discovery

Collections

Teaching and Learning

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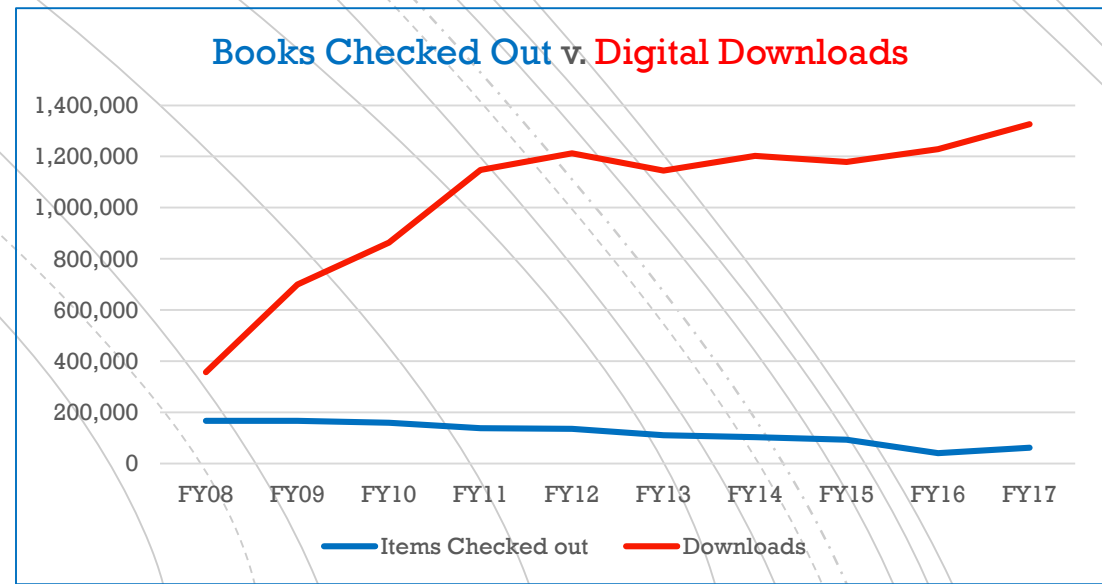
Collections:

Scholarly Resources

- Students access digital resources more than they check out printed books

- A *Student Monitor* survey of 1,200 students also reported a preference for print for every type of study except research.

From: Gensler, *Dialog* 27, Student View of Academic Libraries

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Collections: UMKC Usage Trends

UMKC Book check-outs in

FY2008 = 167,000

FY2017 =   61,612

95% of 2018 budget > digital materia

Books Checked Out v. Digital Downloads

1,400,000	
1,200,000	
1,000,000	
800,000	
600,000	
400,000	
200,000	
0	

FY08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 FY17

— Items Checked out   — Downloads

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What College Students Want

- When studying in the library:
  - A place where they can focus
  - Focus makes their study time more effective.
- 3:1 Quiet study to collaborative study spaces
- Technology rich
- Scholarly resources.
- See and be seen—even if they need to study alone

Gensler, *Dialog* 27, A Student View of Academic Libraries

LIBRARY RESOURCES, TODAY AND TOMORROW

The most important resource provided by today's libraries is quiet space, according to students. When asked about tomorrow's libraries, quiet space remains important, while technology and digital resource concerns rise to the top.

TODAY   IN THE FUTURE

MOST IMPORTANT

Quiet space for students

Digital library/resources
Well integrated technology
Collaborative space for students
Books/stacks on-site

LEAST IMPORTANT

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What College Students Want

"The competition for great study spaces on campus is fierce, the vibe, the slight din, the social component, being near others yet able to focus." says Gensler's Melissa Mizell.

Gensler, *Dialog* 27, A Student View of Academic Library

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Learning Paradigm Shifts

Previous Learning Styles	New Learning Styles
Learning is an individual activity	Learning is a group and an individual activity
Only happens in classrooms at fixed times	Learning takes place everywhere
Classrooms always have a front •Chalkboards or white boards •Tablet chairs—one-size fits all • No sound system except in largest of rooms	Learning spaces are open and flexible • Moveable furniture • Shared screens • No front to the room • Lots of screen projection and white boards • Technology rich
Rote Learning	Learning that fosters critical thinking, creativity and development of communication skills •Team projects •Open discussions •Active learning / High-impact learning
Sage on the stage—Teaching with lectures	Flipped classroom—teacher as facilitator
Print based classroom materials	Multi-media, online resources

Image © Gensler

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Making Room for Library Users

- Science collection acquisition is now mostly electronic
- Physical collections growing at a much slower pace
- Physical collections are less current
- Moving collections to higher density storage
  - Automated Storage Retrieval Systems (ASRS)
  - Off site depositories with 'cherry-picker' installations
  - Compact shelving

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Making Room for Library Users @ UMKC

- Collections were squeezing out the readers
- Limited real estate
- Robotic storage = 1/7 space of traditional stacks
- Keeps collection on site; 80% in RooBot
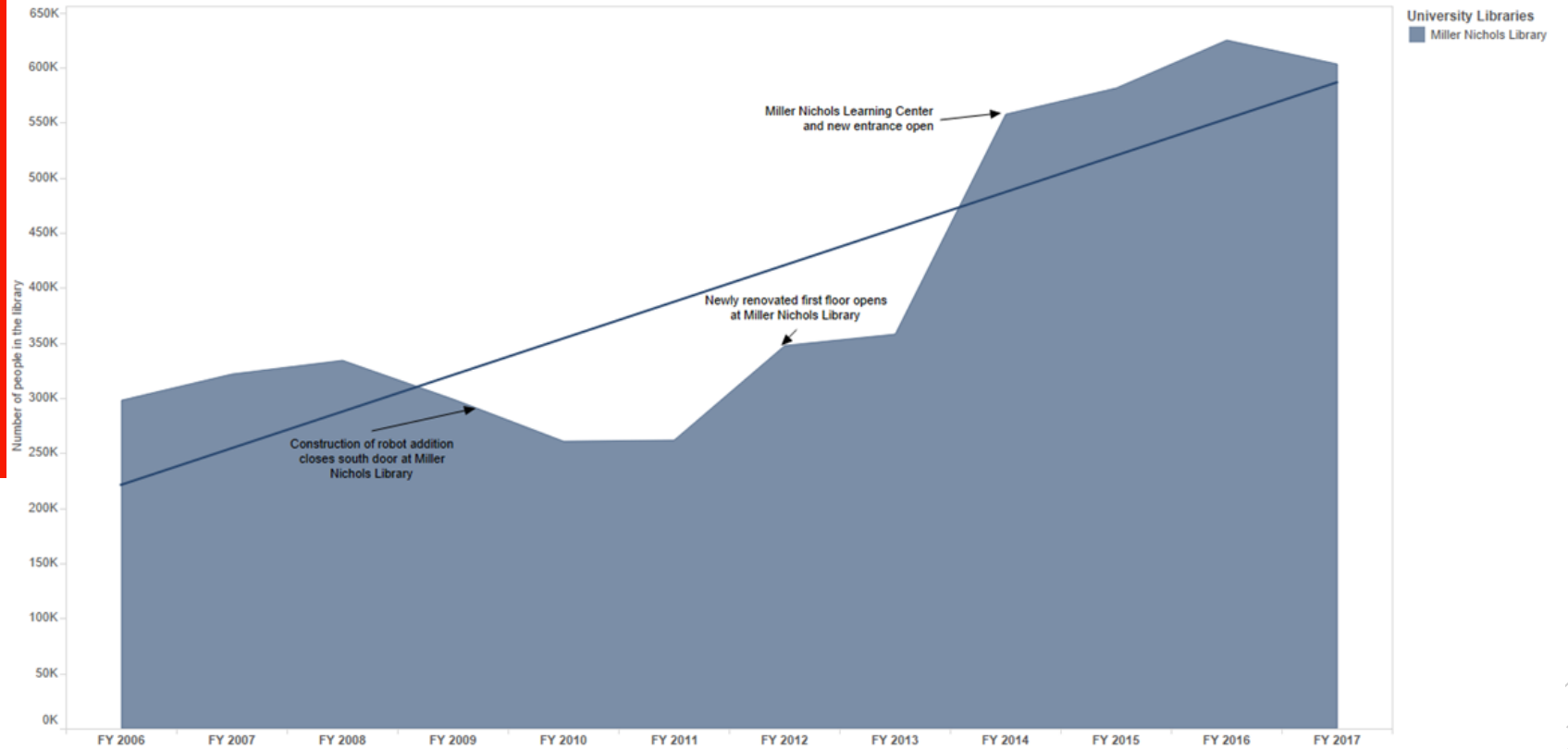- Under 10 minutes retrieval time

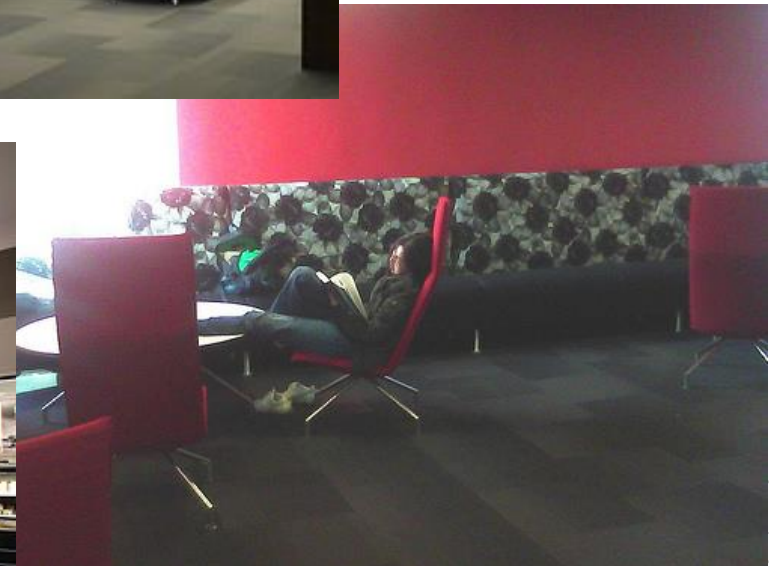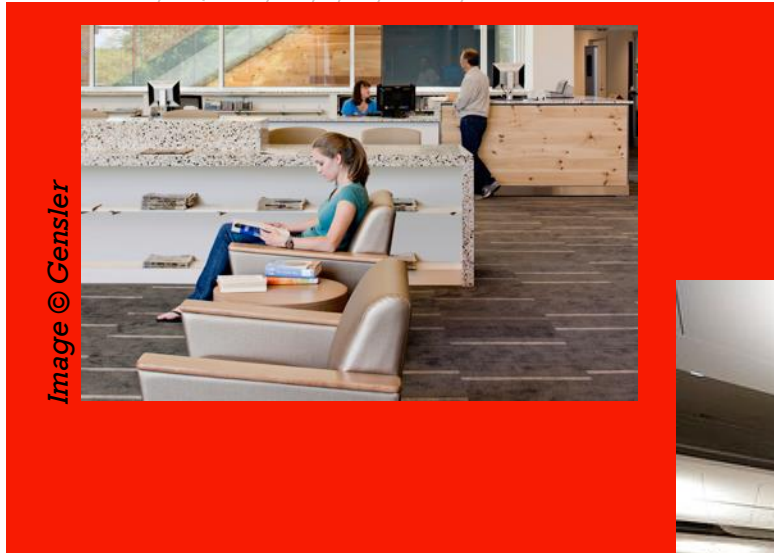# Engineering Transformation and Innovation in Libraries

Revovation Impact at UMKC

Number of People in Miller Nichols Library
2006-2017

University Libraries
Miller Nichols Library

Miller Nichols Learning Center
and new entrance open

Newly renovated first floor opens
at Miller Nichols Library

Construction of robot addition
closes south door at Miller
Nichols Library

Number of people in the library

650K
600K
550K
500K
450K
400K
350K
300K
250K
200K
150K
100K
50K
0K

FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 FY 2012 FY 2013 FY 2014 FY 2015 FY 2016 FY 2017

Shows the total number of people entering the each library building between 2006 and 2017. Lines show the overall trend for each building, while the highlighted areas show the number of people in each building.

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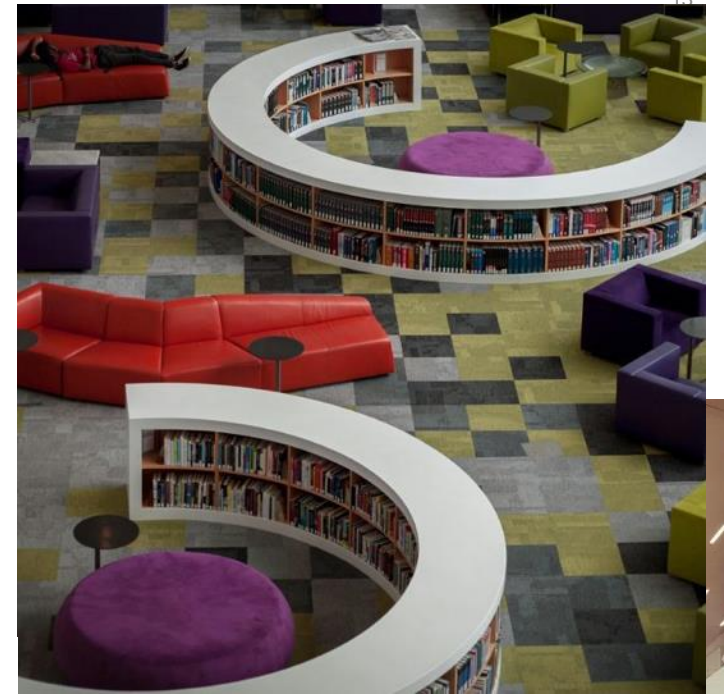
Comfortable Spaces

Image © Gensler

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Comfortable Spaces

Grand Valley
State Univ

Hunt Library--
NCSU

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Libraries as Space for Teachin and Learning:

- Flexible spaces that can be re-arranged for multiple classroom and study needs

Research Consultations

iX Theater @ UMKC Miller Nichols Library

1. Book discussion

2. Program

3. General study

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Collaborative Learning Spaces UMKC

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Collaborative

Learning Spaces
NCSU—Hunt Library

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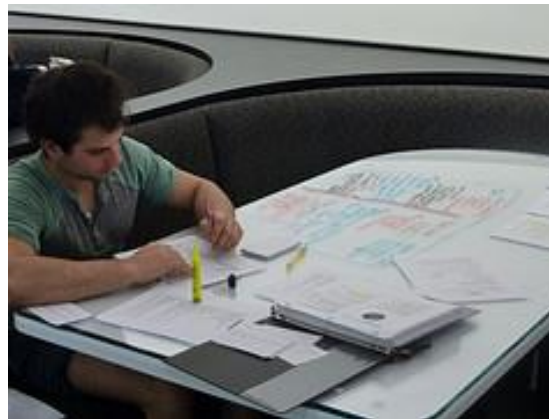**Collaborative Learning Spaces NCSU—Hunt Library**

Terrace

Idea Alcove

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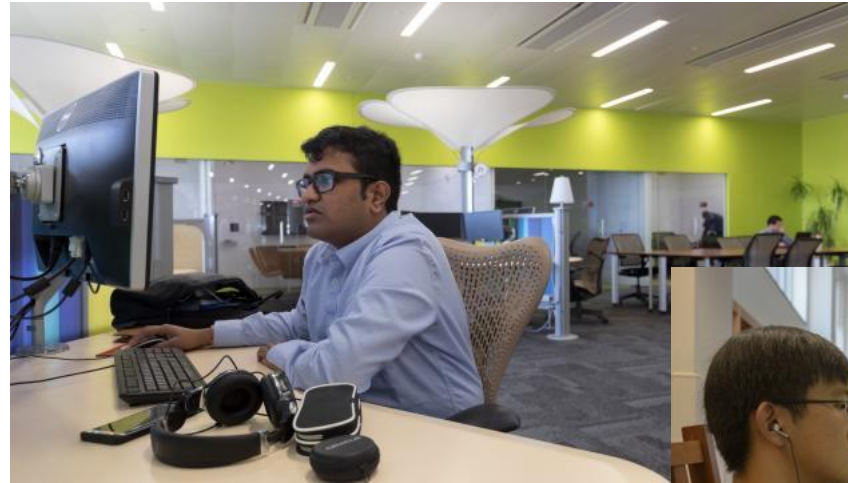Collaborative Learning Spaces NCSU—D.H. Hill Library Presentation Practice Room

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Individual Study UMKC

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Individual Study NCSU Libraries

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High Impact / Active Learning

Makerspace

Technology Showcase and Lending

NCSU Libraries

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High Impact / Active Learning

Music Booths

Virtual Reality Lab

Digital Media Lab

NCSU Libraries

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High Impact / Active Learning

Visualization Lab

Game Lab

Data Space

NCSU Libraries

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High Impact / Active Learning

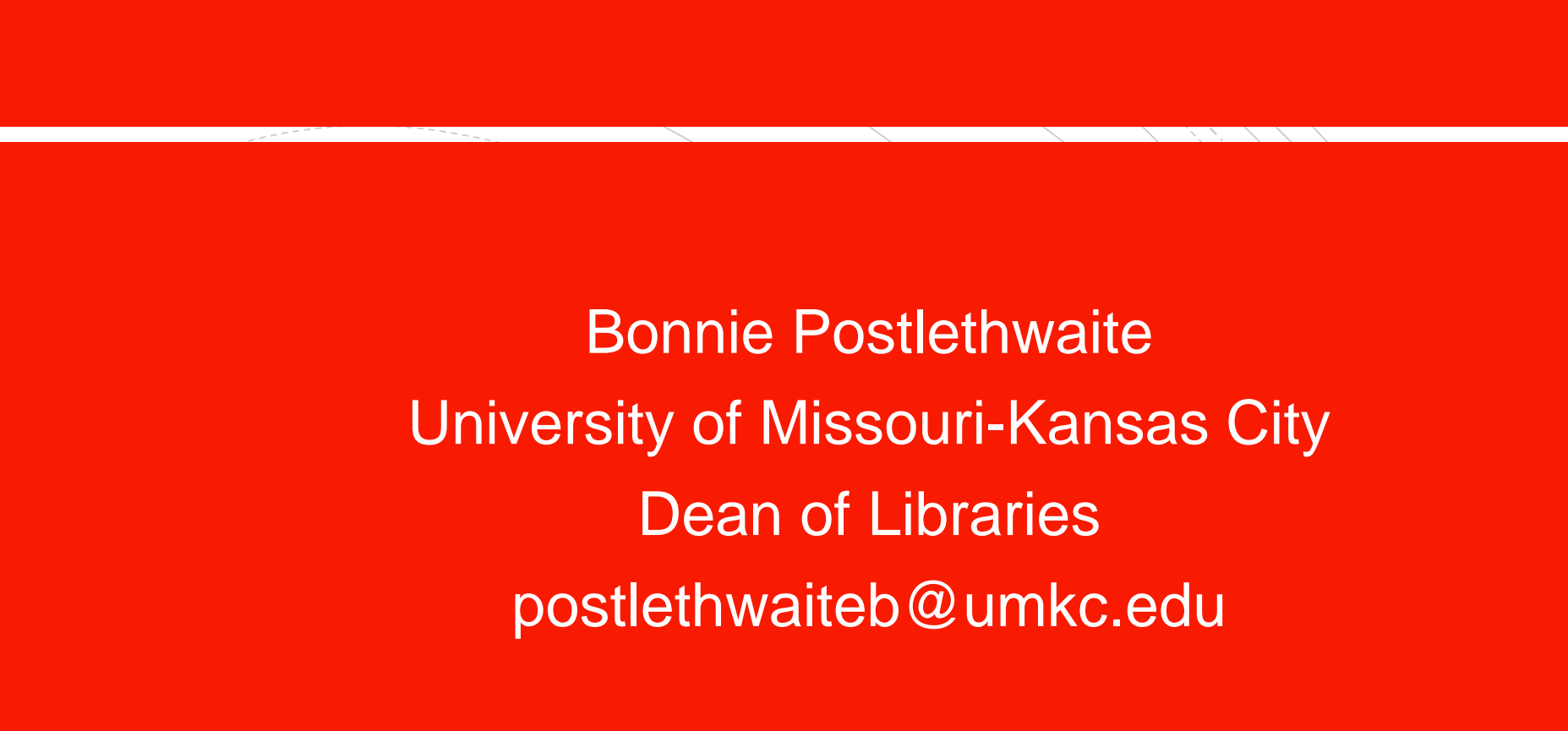## Immersive Technologies

Simulation Lab

NCSU Hunt Library

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NCSU Hunt Library

Web site and video
http://www.ncsu.edu/huntlibrary

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